

WHAT IS CLAIMED IS:

1. A junction box comprising:

a junction box main body to which an electric component to be connected is attached; and

5 a cable portion which is constituted of a flexible printed circuit with a circuit portion including a conductor pattern formed on an insulating film, and electrically connects the junction box main body to an outer wiring circuit,

10 wherein said flexible printed circuit includes a strip portion having a part thereof contained in said junction box main body and a terminal connecting portion extending transversally from a lateral edge of said strip portion at a position to be fitted to said junction box main body,

15 said junction box main body includes a junction box housing provided with a part fitting port for fitting said electric component and a plate-shaped first connecting terminal to be contained in said junction box housing so as to be connected to the terminal connecting portion of said flexible printed circuit and further to said electric component,

20 said junction box housing including a strip-shaped portion containing portion for containing a strip portion provided with said terminal connecting portion of said flexible printed circuit and a terminal containing hole arranged outside the strip-shaped

containing portion containing portion so as to contain said first connecting terminal with its tip end exposed to the outside, and

5 the lateral edges of said strip portion are contained in said strip portion containing portion with said terminal connecting portion bent to show an S-shaped profile at the lateral edges of the strip-shaped containing portion of said flexible printed circuit.

10 2. The junction box according to claim 1, wherein said junction box housing is provided at the outside of the strip-shaped portion containing portion with a lance mechanism for rigidly securing said first connecting terminal to the inside.

15 3. The junction box according to claim 1, wherein said plurality of flexible printed circuits of said cable portion are superimposed upon one another in a non-bonded state so that said terminal connecting portions of the respective flexible printed circuits 20 are arranged in positions with the first connecting terminal of said junction box main body.

25 4. The junction box according to claim 1, wherein said first connecting terminal is connected to said terminal connecting portion by resistance welding, ultrasonic wave welding, laser welding or soldering.

5. The junction box according to claim 1, wherein a plurality of terminal connecting portions are

formed on said flexible printed circuit and extended from the lateral edges of said strip portion.

6. The junction box according to claim 1, wherein
the connecting portion of said first connecting
5 terminal and said terminal connecting portion is sealed
by a molded piece of resin.

7. A junction box comprising:
a junction box main body to which an electric
component to be connected is attached;
10 a connector portion which connects a connector of
an outer wiring circuit and is formed separately from
said junction box main body; and

a cable portion which is constituted of a flexible
printed circuit with a circuit portion including
15 a conductor pattern formed on an insulating film, and
electrically connects the junction box main body to
said connector portion,

wherein said flexible printed circuit includes
a strip portion for linking said junction box main body
20 and said connector portion and a terminal connecting
portion extending transversally from a lateral edge of
said strip portion at positions to be fitted to said
junction box main body and said connector portion,

said junction box main body includes a junction
25 box housing provided with a part fitting port for
fitting said electric component and a plate-shaped
first connecting terminal to be contained in said

junction box housing so as to be connected to the terminal connecting portion of said flexible printed circuit and further to said electric component,

5 said connector portion including a connector housing for receiving said connector of said outer wiring circuit and a second connecting terminal to be connected to the terminal connecting portion of said flexible printed circuit and contained in the connector housing so as to be connected to said connector of said
10 outer wiring circuit, and

 said strip portion of said flexible printed circuit is bent in a transversal direction along a longitudinal direction.

8. The junction box according to claim 7, wherein
15 said first and second connecting terminals are connected to said terminal connecting section by resistance welding, ultrasonic wave welding, laser welding or soldering.

9. The junction box according to claim 7, wherein
20 a plurality of terminal connecting portions are formed on said flexible printed circuit and extended from the lateral edges of said strip portion.

10. The junction box according to claim 7, wherein
25 said plurality of flexible printed circuits of said cable portion are superimposed upon one another in a non-bonded state so that said terminal connecting portions of the respective flexible printed circuits

are arranged in positions with the first connecting terminal of said junction box main body and the second connecting terminal of said connector portion arranged therein.

5 11. The junction box according to claim 7, wherein the connecting portion of said first and second connecting terminals and said terminal connecting portion is sealed by a molded piece of resin.

10 12. The junction box according to claim 9, wherein said flexible printed circuit is formed by bending at least one of the terminal connecting portions formed at the respective lateral edges of said strip portion toward the opposite lateral edge.

15 13. The junction box according to claim 7, wherein the circuit portion of said flexible printed circuit having said strip portion bent in a transversal direction along a longitudinal direction is a power distribution circuit.

20 14. The junction box according to claim 7, wherein said junction box housing is provided with a lance mechanism for rigidly securing said first connecting terminal to the inside.

25 15. The junction box according to claim 7, wherein said connector housing is provided with a lance mechanism for rigidly securing said second connecting terminal to the inside.

16. The junction box according to claim 7, wherein

said connector portion is removably fitted to said connector housing;

said connector portion further comprising a case portion for containing at least a part of said flexible printed circuit in the inside.

5 17. A flexible printed circuit for electrically connecting a junction box main body to which an electric component to be connected is attached and a connector portion for connecting a connector of
10 an outer wiring circuit, said flexible printed circuit comprising:

a strip portion configured to link said junction box main body and said connector portion; and

15 a connecting terminal portion to be connected to a plate-shaped connecting terminal extending transversally from a lateral edge of said strip portion at a position to be fitted to said junction box main body and said connector portion,

wherein said strip portion is bent in a
20 transversal direction along a longitudinal direction.

18. A connector comprising:

a cable portion including a flexible printed circuit having a circuit portion of a conductor pattern formed on an insulating film; and

25 a connector portion configured to connect the cable portion and an outer connector of an outer wiring circuit,

wherein said flexible printed circuit includes
a strip portion partly contained in said connector
portion and a terminal connecting portion extending
transversally from a lateral edge of said strip portion
5 at a position to be fitted to said connector portion,

wherein said connector portion includes a
connector housing for receiving said outer connector
and a plate-shaped second connecting terminal contained
in said connector housing so as to be connected to the
10 terminal connecting portion of said flexible printed
circuit and also to said outer connector,

said connector housing includes a strip-shaped
portion containing portion for containing in the inside
the lateral edge of the strip portion provided with the
15 terminal connecting portion of said flexible printed
circuit and a terminal containing hole arranged outside
of the strip-shaped portion containing portion so as to
contain said second connecting terminal with its front
end exposed to the outside, and

20 said lateral edge of said strip portion is
contained in said strip-shaped portion containing
portion with said terminal connecting portion bent to
show an S-shaped profile at the lateral edges of the
strip portion of said flexible printed circuit.

25 19. The connector according to claim 18, wherein
said connector housing is provided at the outside of
said strip-shaped portion containing section with

a lance mechanism for rigidly securing said second connecting terminal to the inside.

20. The connector according to claim 18, wherein said second connecting terminal is connected to said 5 terminal connecting portion by resistance welding, ultrasonic wave welding, laser welding or soldering.

21. The connector according to claim 18, wherein a plurality of terminal connecting portions are formed on said flexible printed circuit and extended from the 10 lateral edges of said strip portion.

22. The connector according to claim 18, wherein said plurality of flexible printed circuits of said cable portion are superimposed upon one another in a non-bonded state so that said terminal connecting 15 portions of the respective flexible printed circuits are arranged in positions with the second connecting terminal of said connector portion arranged therein.

23. The connector according to claim 18, wherein the connecting portion of said second connecting 20 terminal and said terminal connecting portion is sealed by a molded piece of resin.

24. The connector according to claim 21, wherein said flexible printed circuit is formed by bending at least one of the terminal connecting portions formed 25 at the respective lateral edges of said strip portion toward the opposite lateral edge.

25. The connector according to claim 18, wherein

said connector portion is removably fitted to said connector housing;

said connector portion further comprising a case portion which contains at least a part of said flexible printed circuit in the inside.